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STN STRUCTURE SEARCH
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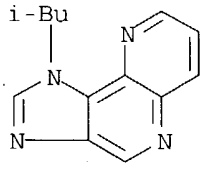
L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:388186 CAPLUS
DOCUMENT NUMBER: 131:44819
TITLE: Imidazonaphthyridines and their use in inducing cytokine biosynthesis
INVENTOR(S): Lingstrom, Kyle J.; Gerster, John F.
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, USA
SOURCE: PCT Int. Appl., 172 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9929693	A1	19990617	WO 1998-US26473	19981211
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2311456	AA	19990617	CA 1998-2311456	19981211
AU 9919123	A1	19990628	AU 1999-19123	19981211
AU 753864	B2	20021031		
BR 9814275	A	20001003	BR 1998-14275	19981211
EP 1040112	A1	20001004	EP 1998-963888	19981211
EP 1040112	B1	20040922		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
US 6194425	B1	20010227	US 1998-210114	19981211
TR 200001705	T2	20010723	TR 2000-200001705	19981211
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EE 4314	B1	20040615		
JP 2001525411	T2	20011211	JP 2000-524286	19981211
RU 2221798	C2	20040120	RU 2000-114496	19981211
NO 2000002663	A	20000811	NO 2000-2663	20000524
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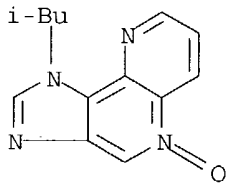
PRIORITY APPLN. INFO.:
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US 2000-706990 A1 20001106
US 2002-265956 A1 20021007
US 2003-406181 A3 20030403

OTHER SOURCE(S): MARPAT 131:44819
GI For diagram(s), see printed CA Issue.
AB Imidazonaphthyridines I (A = :NCR:CRCR:, :CRN:CRCR:, :CRCR:NCH:, or :CRCR:CRN:, R, R1, R2 = H or organic group) and tetrahydroimidazonaphthyridines II (B = NRCR2CR2CR2, CR2NRCR2CR2, CR2CR2NRCR2, or CR2CR2CR2NR, R, R1, R2 = H or organic group) induce the biosynthesis of cytokines such as interferon and tumor necrosis factor. The compds. exhibit antiviral and antitumor properties. Methods of preparing the compds. and intermediates useful in the preparation of the compds. are also disclosed. Thus, reaction of 2-aminonicotinic acid with Ac2O, reaction of the resulting 2-methyl-4H-pyrido[2,3-d][1,3]oxazin-4-one with NaN3, reaction of the resulting 2-(5-methyl-1H-tetrazol-1-yl)nicotinic acid with EtI in Me2CO in the presence of K2CO3, cyclization of the resulting ester, nitration of the resulting hydroxy compound, reaction of the resulting nitro hydroxy compound with isobutylamine, reduction of the NO2 group, formation of an imidazo ring with the resulting 2 amine groups, cleavage of the resulting tetrazolyl ring using PPh3, and reaction of the resulting P derivative gave 1-(2-methylpropyl)-1H-imidazo[4,5-c][1,8]naphthyridin-4-amine hydrate.
IT **227318-68-5P 227318-70-9P 227318-73-2P**
227318-74-3P 227318-76-5P 227318-77-6P
227318-82-3P 227318-83-4P 227319-03-1P
227319-07-5P 227319-09-7P 227319-11-1P
227319-15-5P 227319-16-6P 227319-27-9P
227319-31-5P 227319-47-3P 227319-49-5P
227319-56-4P 227319-59-7P 227319-66-6P
227319-68-8P 227319-90-6P 227319-91-7P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(precursor; imidazonaphthyridines and tetrahydroimadazonaphthyridines for use in inducing cytokine biosynthesis)
RN 227318-68-5 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 1-(2-methylpropyl)- (9CI) (CA INDEX NAME)

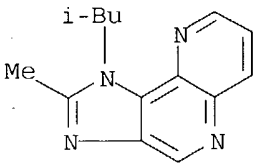


RN 227318-70-9 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 1-(2-methylpropyl)-, 5-oxide (9CI) (CA INDEX NAME)

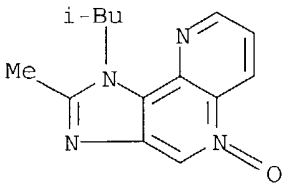


RN 227318-73-2 CAPLUS

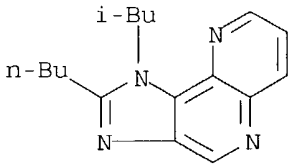
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 2-methyl-1-(2-methylpropyl)- (9CI) (CA INDEX NAME)



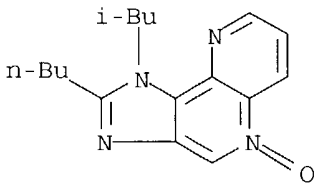
RN 227318-74-3 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 2-methyl-1-(2-methylpropyl)-, 5-oxide (9CI) (CA INDEX NAME)



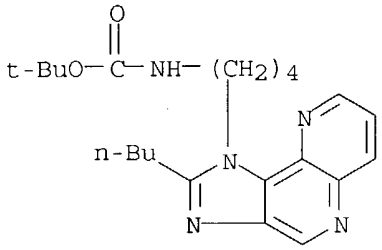
RN 227318-76-5 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 2-butyl-1-(2-methylpropyl)- (9CI) (CA INDEX NAME)



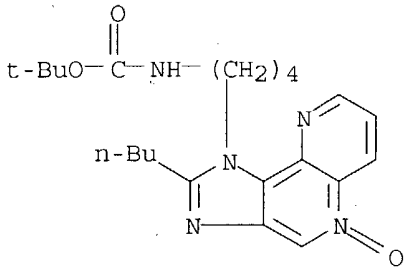
RN 227318-77-6 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 2-butyl-1-(2-methylpropyl)-, 5-oxide (9CI) (CA INDEX NAME)



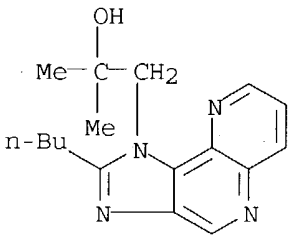
RN 227318-82-3 CAPLUS
CN Carbamic acid, [4-(2-butyl-1H-imidazo[4,5-c][1,5]naphthyridin-1-yl)butyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



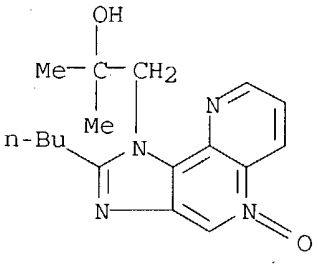
RN 227318-83-4 CAPLUS
CN Carbamic acid, [4-(2-butyl-5-oxido-1H-imidazo[4,5-c][1,5]naphthyridin-1-yl)butyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 227319-03-1 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine-1-ethanol, 2-butyl-α,α-dimethyl- (9CI) (CA INDEX NAME)

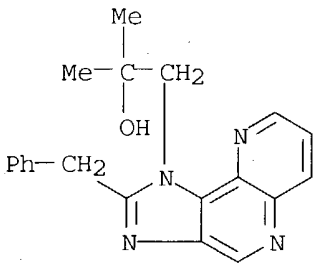


RN 227319-07-5 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine-1-ethanol, 2-butyl-α,α-dimethyl-, 5-oxide (9CI) (CA INDEX NAME)

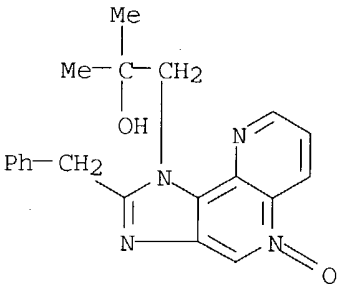


RN 227319-09-7 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine-1-ethanol, α,α-dimethyl-2-

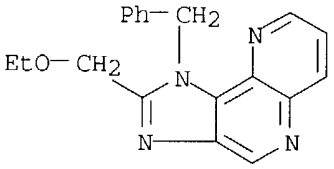
(phenylmethyl)- (9CI) (CA INDEX NAME)



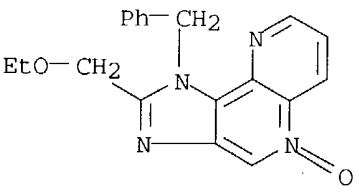
RN 227319-11-1 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine-1-ethanol, α,α-dimethyl-2-(phenylmethyl)-, 5-oxide (9CI) (CA INDEX NAME)



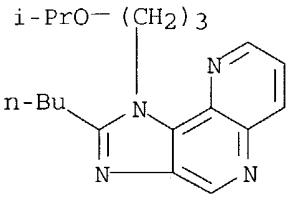
RN 227319-15-5 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 2-(ethoxymethyl)-1-(phenylmethyl)- (9CI) (CA INDEX NAME)



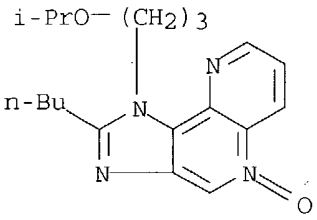
RN 227319-16-6 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 2-(ethoxymethyl)-1-(phenylmethyl)-, 5-oxide (9CI) (CA INDEX NAME)



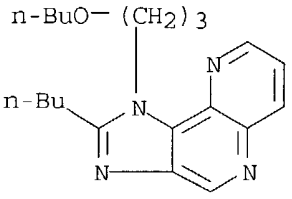
RN 227319-27-9 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 2-butyl-1-[3-(1-methylethoxy)propyl]- (9CI) (CA INDEX NAME)



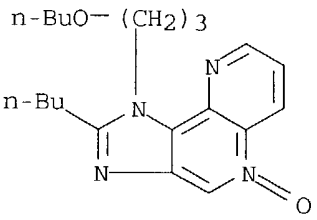
RN 227319-31-5 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 2-butyl-1-[3-(1-methylethoxy)propyl]-, 5-oxide (9CI) (CA INDEX NAME)



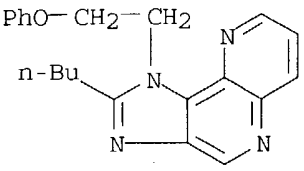
RN 227319-47-3 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 1-(3-butoxypropyl)-2-butyl- (9CI) (CA INDEX NAME)



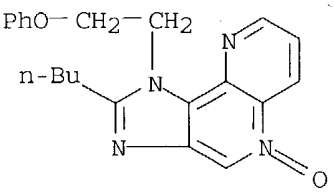
RN 227319-49-5 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 1-(3-butoxypropyl)-2-butyl-, 5-oxide (9CI) (CA INDEX NAME)



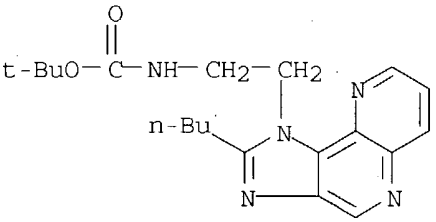
RN 227319-56-4 CAPLUS
CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 2-butyl-1-(2-phenoxyethyl)- (9CI) (CA INDEX NAME)



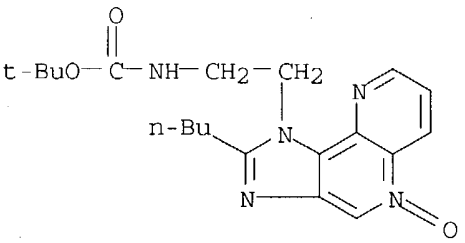
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CN 1H-Imidazo[4,5-c][1,5]naphthyridine, 2-butyl-1-(2-phenoxyethyl)-, 5-oxide (9CI) (CA INDEX NAME)



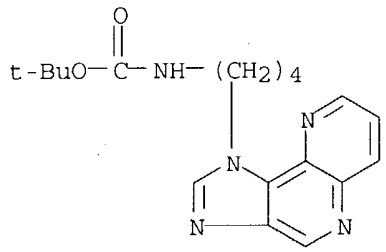
RN 227319-66-6 CAPLUS
CN Carbamic acid, [2-(2-butyl-1H-imidazo[4,5-c][1,5]naphthyridin-1-yl)ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



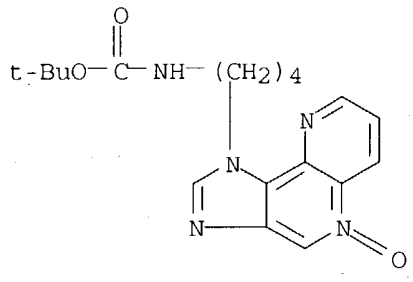
RN 227319-68-8 CAPLUS
CN Carbamic acid, [2-(2-butyl-5-oxido-1H-imidazo[4,5-c][1,5]naphthyridin-1-yl)ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 227319-90-6 CAPLUS
CN Carbamic acid, [4-(1H-imidazo[4,5-c][1,5]naphthyridin-1-yl)butyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 227319-91-7 CAPLUS
CN Carbamic acid, [4-(5-oxido-1H-imidazo[4,5-c][1,5]naphthyridin-1-yl)butyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

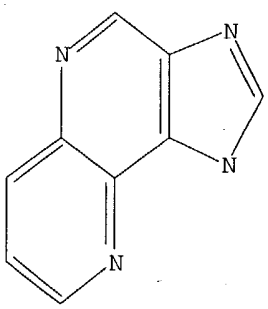
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10/824,232

Structure attributes must be viewed using STN Express query preparation.

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PALM INTRANET

Day : Tuesday
Date: 10/19/2004
Time: 08:31:26

Inventor Name Search Result

Your Search was:

Last Name = GERSTER
First Name = JOHN

Application#	Patent#	Status	Date Filed	Title	Inventor Name 51
60606629	Not Issued	020	09/02/2004	1-ALKOXY 1H-IMIDAZO RING SYSTEMS AND METHODS	GERSTER JOHN F.
60603303	Not Issued	020	08/20/2004	PYRAZOLOPYRIDINES AND ANALOGS THEREOF	GERSTER JOHN F.
60554680	Not Issued	020	03/19/2004	PYRAZOLOPYRIDINES AND ANALOGS THEREOF	GERSTER JOHN F.
60516331	Not Issued	020	10/31/2003	ARYL SUBSTITUTED IMIDAZOQUINOLINES	GERSTER JOHN F.
60508352	Not Issued	159	10/03/2003	PYRAZOLOPYRIDINES AND ANALOGS THEREOF	GERSTER JOHN F.
60163724	Not Issued	159	11/05/1999	FLOURESCENT IMIDAZOQUINOLINE COMPOUNDS	GERSTER, JOHN F.
60103851	Not Issued	159	10/12/1998	FLUORESCENT IMIDAZOQUINOLINE COMPOUNDS	GERSTER, JOHN F.
60094346	Not Issued	159	07/28/1998	OXAZOLO, THIAZOLO AND SELENAZOLO [4,5-C]-QUINOLIN-, TETRAHYDROQUINOLIN-4-AMINES AND HETERO ANALOGS THEREOF	GERSTER, JOHN F.
60069276	Not Issued	159	12/11/1997	IMIDAZONAPHTHYRIDINES	GERSTER, JOHN F.
10824232	Not Issued	030	04/14/2004	IMIDAZONAPHTHYRIDINES	GERSTER JOHN F.
10739787	Not Issued	041	12/18/2003	ARYL SUBSTITUTED IMIDAZOQUINOLINES	GERSTER JOHN F.
10731826	6790961	150	12/09/2003	PROCESS FOR PREPARING 1-SUBSTITUTED, 2-SUBSTITUTED 1H-IMIDAZO[4,5-C]QUINOLIN-4-AMINES	GERSTER JOHN F.
10726131	6809203	150	12/02/2003	OXAZOLO, THIAZOLO AND SELENAZOLO [4,5-C]-QUINOLIN-4-AMINES AND ANALOGS THEREOF	GERSTER JOHN F.

10624014	Not Issued	094	07/21/2003	PROCESS FOR PREPARING IMIDAZOQUINOLINAMINES	GERSTER JOHN F.
10436905	6686472	150	05/13/2003	PROCESS FOR PREPARING 1-SUBSTITUTED, 2-SUBSTITUTED 1-H-IMIDAZO(4,5-C)QUINOLIN-4-AMINES	GERSTER JOHN F.
10406181	6797716	150	04/03/2003	IMIDAZONAPHTHYRIDINES	GERSTER JOHN F.
10370804	6703402	150	02/20/2003	OXAZOLO, THIAZOLO AND SELENAZOLO [4,5-C]-QUINOLIN-4-AMINES AND ANALOGS THEREOF	GERSTER JOHN F.
10360210	6624305	150	02/06/2003	PROCESS FOR PREPARING IMIDAZOQUINOLINAMINES	GERSTER JOHN F.
10352606	6613902	150	01/28/2003	PROCESS FOR PREPARING IMIDAZOQUINOLINAMINES	GERSTER JOHN F.
10242340	6627638	150	09/12/2002	OXAZOLO, THIAZOLO AND SELENAZOLO [4,5-C]-QUINOLIN-4-AMINES AND ANALOGS THEREOF	GERSTER JOHN F.
10241931	6677334	150	09/12/2002	OXAZOLO, THIAZOLO AND SELENAZOLO [4,5-C]-QUINOLIN-4-AMINES AND ANALOGS THEREOF	GERSTER JOHN F.
10238661	6608201	150	09/10/2002	PROCESS FOR PREPARING 1-SUBSTITUTED, 2-SUBSTITUTED 1H-IMIDAZO[4,5-C]QUINOLIN-4-AMINES	GERSTER JOHN F.
10192416	6627640	150	07/10/2002	OXAZOLO, THIAZOLO AND SELENAZOLO [4,5-C]-QUINOLIN-4-AMINES AND ANALOGS THEREOF	GERSTER JOHN F.
10180678	6534654	150	06/26/2002	PROCESS FOR PREPARING IMIDAZOQUINOLINAMINES	GERSTER JOHN F.
09974038	6465654	150	10/09/2001	PROCESS FOR PREPARING 1-SUBSTITUTED, 2-SUBSTITUTED 1H-IMIDAZO [4, 5-C] QUINOLINE-4-AMINES	GERSTER JOHN F.
09961738	6440992	150	09/24/2001	OXAZOLO, THIAZOLO AND SELENAZOLO [4,5-C]-QUINOLIN-4-AMINES AND ANALOGS THEREOF	GERSTER JOHN F.
09945196	6518280	150	08/31/2001	IMIDAZONAPHTHYRIDINES	GERSTER JOHN F.
09706990	6514985	150	11/06/2000	IMIDAZONAPHTHYRIDINES	GERSTER JOHN F.

09678192	6437131	150	10/04/2000	PROCESS FOR PREPARING IMIDAZOQUINOLINAMINES	GERSTER JOHN F.
09593434	6323200	150	06/14/2000	OXAZOLO, THIAZOLO AND SELENAZOLO [4,5-C] QUINOLIN-4-AMINES AND ANALOGS THEREOF	GERSTER JOHN F.
09375587	6150523	150	08/17/1999	PROCESS FOR PREPARING IMIDAZOQUINOLINAMINES	GERSTER , JOHN F.
09361544	6110929	150	07/27/1999	OXAZOLO, THIAZOLO AND SELENAZOLO [4,5-C]-QUINOLIN-4-AMINES AND ANALOGS THEREOF	GERSTER , JOHN F.
08812459	5886006	150	03/06/1997	FUSED CYCLOALKYLIMIDAZOPYRIDINES	GERSTER , JOHN F.
08789264	5741909	150	01/28/1997	1-SUBSTITUTED, 2-SUBSTITUTED 1H-IMIDAZO[4,5-C]QUINOLIN-4-AMINES	GERSTER , JOHN F.
08675204	5627281	150	07/03/1996	INTERMEDIATE COMPOUNDS FUSED CYCLOALKYLIMIDAZOPYRIDINES	GERSTER , JOHN F.
08673712	5741908	150	06/21/1996	PROCESS FOR PREPARING IMIDAZOQUINOLINAMINES	GERSTER , JOHN F.
08620779	5714608	150	03/22/1996	1-SUBSTITUTED 1H-IMIDAZO-[4,5-C]QUINOLIN-4-AMINES	GERSTER , JOHN F.
08471442	5648516	150	05/31/1995	FUSED CYCLOALKYLIMIDAZOPYRIDINES	GERSTER , JOHN F.
08455273	5756747	150	05/31/1995	1H-IMIDAZO[4,5-C]QUINOLIN-4-AMINES	GERSTER , JOHN F.
08353802	5605899	150	12/12/1994	1-SUBSTITUTED, 2-SUBSTITUTED 1H-IMIDAZO[4,5-C]OUINOLIN-4-AMINES	GERSTER , JOHN F.
08277959	5444065	150	07/20/1994	FUSED CYCLOALKYLIMIDAZOPYRIDINES AS INDUCER OF INTERFERON ALPHA BIOSYNTHESIS	GERSTER , JOHN F.
08264731	5525612	150	06/23/1994	1-SUBSTITUTED 1H-IMIDAZO-[4,5-C]QUINOLIN-4-AMINES	GERSTER , JOHN F.
07663110	5175296	150	03/01/1991	IMIDAZO(4,5-C)QUINOLIN-4-AMINES AND PROCESSES FOR THEIR PREPARATION	GERSTER , JOHN F.
07662926	Not Issued	168	03/01/1991	1-SUBSTITUTED, 2-SUBSTITUTED IH-IMIDAZO(4,5-C)QUINILIN-4-AMINES	GERSTER , JOHN F.
07593078	Not Issued	166	10/05/1990	PROCESS FOR IMIDAZO(4,5-C)QUINOLIN-4-AMINES	GERSTER , JOHN F.

07484871	5037986	150	02/26/1990	OLEFINIC 1H-IMIDAZO(4,5-C)QUINOLIN-4-AMINES	GERSTER, JOHN F.
07327693	4929624	150	03/23/1989	OLEFINIC 1H-IMIDAZO(4,5-C)QUINOLIN-4-AMINES	GERSTER, JOHN F.
07316035	Not Issued	161	02/27/1989	1H-IMIDAZO(4,5-C)QUINOLIN-4-AMINES	GERSTER, JOHN F.
06859341	Not Issued	161	05/05/1986	PHENYL-SUBSTITUTED TRICYCLIC ANTIBACTERIAL AGENTS	GERSTER, JOHN F.
06376540	4456606	150	05/10/1982	SUBSTITUTED NAPHTHO(IJ)QUINOLIZINES	GERSTER, JOHN F.
06254973	4348521	250	04/16/1981	SUBSTITUTED PYRIDOQUINOXALINE-6-CARBOXYLIC ACIDS AND DERIVATIVES THEREOF	GERSTER, JOHN F.

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